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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,252	03/14/2001	Naoto Kondo	108930	1316
25944	7590	11/20/2003	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			STOCK JR, GORDON J	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/805,252

Applicant(s)

KONDO, NAOTO

Examiner

Gordon J Stock

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003 and 04 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 and 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Drawings were received on 8/27/03 (And due to imaging problems the examiner requested a copy of documents filed on 8/27/03. These copies were received on 11/4/03). These drawings are acceptable.
2. The amendment received on 8/27/03 has been entered into the file. In addition, due to imaging problems Examiner requested a copy of the amendment. This copy was received on 11/4/03.

***Claim Objections***

3. Claim 8 is objected to for the following: the term, "the detection lights," of lines 5 and 6 lacks antecedent basis. Correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 6, 7, and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki et al. (5,365,051)**.

As for **claims 1 and 7**, Suzuki in a projection exposure apparatus discloses the following: a position detection optical system, a TTL alignment system, which detects a position of a mark formed on a street line of a substrate; and a focus detection system which irradiates a detection light to the substrate, and which detects deviation between an irradiated region and a focus plane of the projection lens by detecting a reflected light, the light being irradiated on a region of said

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street line which is different from a region on which said mark is formed (Figs. 1, 2, 4a, 4b; col. 2, lines 20-45; col. 3, lines 55-65; col. 4, lines 5-20 and lines 53-67). In addition, the irradiation may be done before detecting a position of the mark by the alignment system (col. 9, lines 40-67). As for focal plane of the position detection optical system, Suzuki states the focal plane of the projection lens (col. 2, lines 20-45; col. 4, lines 3-8). However, the TTL alignment system detects marks through the projection lens (Fig. 1, col. 3, lines 55-60). Therefore, it would be obvious to one skilled in the art at the time the invention was made that the deviation was between the irradiated region and a focus plane of the position detection optical system, for the deviation was between the irradiated region and a focus plane of the projection lens which comprises the alignment system.

As for **claims 6 and 11**, Suzuki discloses everything as above (see claims 1 and 7). In addition, Suzuki discloses a pattern area to be transferred being exposed onto a substrate (col. 3, lines 40-50; col. 4, lines 20-25) aligned by the alignment apparatus of claim 1 (see claim 1 above); alignment is performed as in claim 7 (see claim 7 above) and subsequently the substrate is exposed (col. 9, lines 40-67).

#### ***Response to Arguments***

6. Applicant's remarks with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection. However, due to applicant's amending of the claims, the rejection of the claims 1-11 under 35 U.S.C. 112 second paragraph has been withdrawn.

***Allowable Subject Matter***

7. **Claims 2-5, 8-10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to **claim 2**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an alignment apparatus a focus detection system comprises a first detection system using a first detection light along said first direction and a second detection system using a second detection light extending along said second direction, in combination with the rest of the limitations of **claims 2-5**.

As to **claims 8-10**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an alignment method a first detection light extending along said first direction and a second detection light extending along said second direction are irradiated as said detection light, in combination with the rest of the limitations of **claims 8-10**.

***Fax/Telephone Numbers***

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The*

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*form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (703) 305-4787.

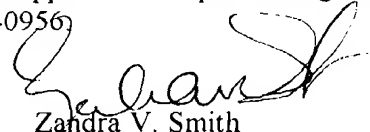
The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gs

November 14, 2003

  
Zandra V. Smith  
Primary Examiner  
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